


IN THE SPECIFICATION

Please amend the specification as follows:


On page 3, please amend the third full paragraph as follows:

-- According to the present invention in one aspect, there is provided a process for producing laminated metal strip which comprises the steps of chemically treating the strip to form on at least one of its surfaces a non-metallic coating, and applying to that coated surface a coating of a thermoplastic resin to form a layer thereon.

 In another ~~According to the present invention in one~~ aspect, there is provided a process for manufacturing laminated mild steel strip, the process comprising the steps of,

- (a) cleaning the strip;
- (b) chemically pre-treating the cleaned strip to form on one or each of its surfaces a non-metallic chemical coating of an oxyanion to resist corrosion of the underlying mild steel substrate and to promote adhesion to a subsequently applied layer; and,
- (c) applying to the chemically-treated strip a coating of thermoplastic resin to form a protective layer on at least one surface thereof. --

On page 5, please amend the first full paragraph as follows:

 -- ~~The oxyanion coating may comprise a phosphate, a chromate, an oxalate or an arsenate. Additionally, the coating may comprise yttrium, elements in the lanthanum series of the periodic table, silanes or azoles~~ The chemical coating may comprise an oxyanion such as phosphate, chromate, oxalate or arsenate. Alternatively, or in addition, the coating may comprise yttrium, elements in the lanthanum series of the periodic table, silanes or azoles. --

On page 5, please amend the third full paragraph as follows:

-- ~~The chemical treatment may comprise, for example zinc orthophosphates, manganese phosphates or iron phosphates, thereby producing crystalline phosphate coatings on the strip~~ In one embodiment of the invention, the chemical coating comprises silanes. Silanes are a family of organosilicon monomers that are characterised by the formula $R-SiX_3$, where R is an organofunctional group linked to silicon by a hydrolytically stable bond and X denotes hydrolyzable groups, such as alkoxy groups, which are converted to silanol groups on hydrolysis.

Preferably, the chemical coating comprises $CH_2CH_2CH_2Si(OCH_3)_3$, where R is a reactive functional group and X is the methoxy group.

Without wishing to be bound by any theory, in order to react with the metal strip, the chemical coating may be converted to an active silanol by hydrolysis. In aqueous solution, the hydrolysed silane may react with the inorganic surface hydroxyl groups on the metal oxide layer.

In order to react with the organic resin layer, organic chemistry predicts the formation of chemical covalent bonds between the organofunctional group of the silane and the reactive species in the organic resin matrix. In addition, the formation of an interpenetrating polymer network of the silane and the organic polymer may involve the formation of a "diffused" polymer at the silane-polymer interface.

Alternatively, the chemical treatment may comprise phosphates, for example zinc orthophosphates, manganese phosphates or iron phosphates, thereby producing crystalline phosphate coatings on the metal substrate. --

On page 5, after the fourth full paragraph, please insert the following paragraph:

-- In one embodiment, the chemical coating may comprise a commercially available chemical treatment comprising chromium, silicon and organic active species. Alternatively, the chemical coating may comprise a commercially available chemical treatment comprising a two component organic polymer i.e. an acrylic polymer and (NH₃)Cr₂O₆. --

On page 7, prior to the first full paragraph, please insert the following paragraphs:

-- In yet another aspect, the invention provides a laminated metal strip produced by a process which comprises the steps of:

1. chemically pre-treating metal strip to form on one or each of its surfaces a non-metallic chemical coating, which resists corrosion of the underlying metal substrate and promotes adhesion to a subsequently applied layer; and,
2. applying to the chemically-treated metal strip a coating of thermoplastic resin to form a protective layer on at least one surface thereof.

In yet another aspect, the invention provides a packaging container comprising such laminated metal strip.

Chemical treatment obviates the need for a metallic coating on the metal strip substrate. As the conventional electroplated metal coating is normally applied on a separate process line to the organic coating line, the omission of this step results in considerable cost and energy savings, as well as increasing through yield. --